

SYSTEM AND METHOD FOR A GUARANTEED DELAY JITTER BOUND WHEN
SCHEDULING BANDWIDTH GRANTS FOR VOICE CALLS VIA A CABLE NETWORK

ABSTRACT

A system and method for guaranteeing a delay jitter bound when scheduling bandwidth grants for voice calls via a communication medium is provided. The method includes the steps of: determining the delay jitter bound; based on the determined delay jitter bound, dividing a packetization frame period into phases; assigning a voice call to one of the phases; and scheduling a bandwidth grant to the voice call during the assigned phase, thereby guaranteeing the delay jitter bound. The system includes a scheduler, where the scheduler determines the delay jitter bound, divides a packetization frame period into phases based on the determined delay jitter bound, assigns a voice call to one of the phases, and schedules a bandwidth grant to the voice call during the assigned phase, thereby guaranteeing the delay jitter bound. A dejitter buffer implements a way to provide zero jitter service, even though the packet transmission on the cable network has jitter, by delaying the packet and thus converting jitter into delay.